

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-7: (Canceled).

Claim 8 (Currently Amended): ~~A~~ An isolated DNA sequence which codes for a protein having an enzymatic activity of orotate phosphoribosyl-transferase (pyrF activity) which comprises:

a DNA sequence selected from the group consisting of:

the DNA sequence SEQ ID NO: 1 ~~in a region~~ from position 1133 up to and including position 1877; and

the DNA sequence SEQ ID NO: 2 ~~in a region~~ from position 1 up to and including position 6847

~~a DNA sequence having a sequence homology of more than 70% with the said region of the DNA sequence SEQ ID NO: 1, and~~

~~a DNA sequence having a sequence homology of more than 70% with the said region of the DNA sequence SEQ ID NO: 2.~~

Claim 9: (Original): ~~A~~ An isolated protein having pyrF activity, which comprises:

an amino acid sequence selected from the group consisting of: the amino acid sequence SEQ ID NO: 37 ~~and~~

~~an amino acid sequence having a sequence homology
of more than 70% with the amino acid sequence SEQ ID NO: 3.~~

Claim 10 (Currently Amended): An expression vector with
comprises a the DNA sequence as claimed in claim 8.

Claim 11 (Currently Amended): A transformed microorganism
which comprises an the expression vector as claimed in claim 10.

Claim 12 (Withdrawn): A process for producing fungal strains
which are capable of efficient expression and secretion of
proteins, comprising

transforming a fungal strain which an auxotrophic gene
defect as host strain in a transformation mixture, using with an
expression vector which has a gene for complementation of the
auxotrophic gene defect in the host strain;

selecting clones transformed with the expression vector
from the transformation mixture by selection for complementation
of the auxotrophic gene defect;

controlling expression of the gene for complementation
of the auxotrophic gene defect in the host strain by a genetic
regulatory element which is active in the host strain; and

employing as host strain a uridine-auxotrophic fungus
selected from the group consisting of genera consisting of
Trametes, Coriolus and Polyporus with a gene defect in the pyrF
gene.

Claim 13 (Withdrawn): An expression system comprising:

a host strain selected from the group consisting of genera consisting of Trametes, Coriolus and Polyporus having a genetic defect in metabolism, on the basis of which the metabolite uridine which is essential for growth is no longer synthesized, and the host strain is no longer able to grow on minimal media without addition of this metabolite; and

an expression vector comprising a selection marker gene which complements the auxotrophic gene defect of the host strain, wherein the host strain has a genetic defect in metabolism a defect in the pyrF gene, and the selection marker gene is the pyrF gene from a fungus of the class Basidiomycetes.

Claim 14 (Withdrawn): A process for producing a protein, which comprises employing an expression system as claimed in claim 13 comprising a gene encoding the protein in a manner known in a culture for protein production; and obtaining the protein from the culture.

Claim 15 (Currently Amended): A process for producing a protein, which comprises cultivating in a culture a microorganism ~~as claimed in claim 11,~~ comprising a gene polynucleotide encoding the protein under the control of an expression vector according to claim 10; and obtaining the protein from the culture.

Claim 16 (Withdrawn): A process for producing a protein, which comprises cultivating in a culture a fungal strain produced by a process as claimed in claim 12, comprising a gene encoding the protein, and obtaining the protein from the culture.